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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/649,369

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Lawrence R. Fishman

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07/13/2005

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EXAMINER

QIN, JIANCHUN

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/649,369	Applicant(s) FISHMAN, LAWRENCE R.	
	Examiner Jianchun Qin	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/24/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 9-21, 23, 33-36, 38 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Armstrong (U.S. Pat. No. 4472994).

With respect to claim 1:

Armstrong teaches a preamplifier assembly for a musical instrument, comprising: a housing including a face portion and a battery holder, the battery holder being configured to hold a battery, the housing being connectable to a surface of the musical instrument while allowing unobstructed user access to the face portion of the housing (col. 4, lines 24-29 and col. 5, lines 30-37); a cover for securely enclosing the battery within the battery holder, the cover being movably mounted on the face portion of the housing to allow the user to access the battery within the battery holder (col. 5, lines 46-52); preamplifier circuitry disposed in the housing (col. 4, lines 24-37); and an output connector operatively connected to the preamplifier circuitry, the output connector being mounted on the face portion of the housing (col. 4, lines 47-50).

With respect to claims 2-6 and 9-21:

The teaching of Armstrong further includes: at least one control mechanism operatively connected to the preamplifier circuitry, the control mechanism being configured to control at least one characteristic of an output signal provided by the preamplifier circuitry via the output connector (col. 4, lines 27-31); the face portion of the housing is configured to allow the user to access the control mechanism (Fig. 1, #66 and #68); the signal characteristic controlled by the control mechanism is selected from the group consisting of volume and tone (col. 4, lines 27-29); the housing includes an electronics enclosure, the electronics enclosure being configured to house the preamplifier circuitry (col. 4, lines 24-54); the preamplifier circuitry is secured within the electronics enclosure via the mounting of the output connector on the face portion of the housing (col. 4, lines 24-554); at least one input device operatively connected to the preamplifier circuitry (col. 4, lines 34-37 and col. 5, lines 53-59); the input device is selected from the group consisting of a pre-wired pickup, a pre-wired microphone, a vibration sensitive transducer, a force sensor, an accelerometer, and a pressure sensor (col. 5, lines 53-59); the at least one input device includes a first input device and a second input device, the first and second input devices being configured to provide respective input signals to the preamplifier circuitry (col. 4, lines 34-37 and col. 5, lines 53-59); at least one control mechanism operatively connected to the preamplifier circuitry for adjustably blending the respective input signals provided by the first and second input devices (col. 4, lines 41-47); the face portion of the housing is configured to allow the user to access the control mechanism (Fig. 1, #66 and #68); the musical instrument is selected from the group consisting of an acoustic guitar, a hollow body

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electric guitar, a semi-hollow body electric guitar, a solid body electric guitar, a ukulele, a mandolin, a violin, a viola, a cello, and a bass violin (Fig. 1); the output connector comprises an output jack (Fig. 1, #80); the face portion of the housing is configured to reinforce the output jack (col. 4, lines 55-62); the output jack is configured to receive an output plug, the preamplifier circuitry including a shorting contact configured to be actuated when the output plug is received by the output jack, thereby allowing power to be provided to the preamplifier circuitry (Fig. 1, #80 and #88; Fig. 3; col. 4, lines 55-62; and col. 5, lines 30-45); a printed circuit board subassembly comprising first and second printed circuit boards and a printed circuit board spacer, the first and second circuit boards being mechanically connected to each other in a predetermined fixed orientation by the circuit board spacer (col. 4, lines 31-47); the preamplifier circuitry is disposed on at least one of the first and second circuit boards (col. 4, lines 31-47); the output connector is connected to a selected one of the first and second circuit boards (col. 4, lines 31-45); the face portion of the housing has an opening formed therethrough, wherein the circuit board assembly is configured to engage the housing, and wherein the first and second circuit boards are oriented to allow the user to access the output connector via the opening when the circuit board assembly engages the housing (Fig. 1, #64, #80 and #81).

With respect to claim 23:

Armstrong teaches a preamplifier housing for a musical instrument, the housing being connectable to a surface of the musical instrument, comprising: a face portion, the housing being connectable to the surface of the musical instrument while allowing

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unobstructed user access to the face portion of the housing (col. 4, lines 24-29); an electronics enclosure configured to house preamplifier circuitry (col. 4, lines 24-37); a battery holder configured to hold a battery therein for powering the preamplifier circuitry, the face portion of the housing being configured to provide access to the battery holder (col. 5, lines 30-37); and a cover movably mounted on the face portion of the housing, the cover being configured to enclose the battery within the battery holder (col. 5, lines 46-52).

With respect to claim 33:

Armstrong teaches a method of assembling a preamplifier for a musical instrument, the preamplifier assembly including a housing having a face portion, the housing being configured to connect to a surface of the musical instrument while allowing unobstructed user access to the face portion of the housing (col. 4, lines 24-29), comprising the steps of: operatively connecting an input device to preamplifier circuitry, the preamplifier circuitry being disposed on at least one printed circuit board of a printed circuit board subassembly (col. 4, lines 34-37; col. 5, lines 53-59); operatively connecting an output connector to the preamplifier circuitry (col. 4, lines 47-50); mechanically attaching the output connector to the circuit board subassembly (col. 4, lines 47-50); disposing the circuit board subassembly having the input device and the output connector connected thereto within the housing, the output connector being in registration with an opening formed through the face portion of the housing (col. 4, lines 24-37); and mechanically attaching the output connector to the face portion of the housing at the opening formed therethrough, thereby securing the circuit board

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assembly within the housing and allowing the user to access the output connector via the opening in the face portion (col. 4, lines 24-54).

With respect to claims 34-36, 38 and 39:

The teaching of Armstrong further includes: operatively connecting the input device to the preamplifier circuitry, the input device being selected from the group consisting of a pre-wired pickup, a pre-wired microphone, a vibration sensitive transducer, a force sensor, an accelerometer, and a pressure sensor (col. 5, lines 53-59); the second attaching step includes mechanically attaching the output connector to the face portion of the housing at the opening formed therethrough, the output connector comprising an output jack, the output jack being mechanically attached to the face portion of the housing by at least one fastener (Fig. 1, #64, #80 and #81; Fig. 3; col. 4, lines 47-50 and lines 55-62); wherein the circuit board subassembly comprises first and second printed circuit boards and a printed circuit board spacer, and further including the step of disposing the first and second circuit boards on the circuit board spacer to mechanically interconnect the circuit boards in a predetermined fixed orientation, thereby allowing the user to access the output connector via the opening in the face portion when the circuit board subassembly is disposed in the housing (col. 4, lines 31-47; col. 5, lines 46-52); the housing includes an electronics enclosure for housing the circuit board assembly and a battery holder for holding a battery to power the preamplifier circuitry, the battery being accessible by the user via an opening in the face portion of the housing, and further including the step of attaching a captive cover for the battery holder to the face portion of the housing (col. 4, lines 24-29; col. 5, lines

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30-37 and lines 46-52); and the battery holder has a plurality of battery terminals disposed therein, and further including the step of operatively connecting the battery terminals to the preamplifier circuitry (Fig. 1, #84, #86, #88 and #90; and col. 5, lines 30-45); wherein the preamplifier assembly includes an output connector connected to a face portion of the housing (Fig. 1, #80; and col. 4, lines 47-50).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 8, 31, 32, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong (U.S. Pat. No. 5274434) in view of Wechter (U.S. Pat. No. 4351217).

With respect to claims 7, 8, 31 and 32:

Armstrong teaches the preamplifier assembly that includes the subject matter discussed above.

Armstrong does not mention expressly: the housing further includes a mounting flange configured to connect the housing to the surface of the musical instrument; the surface of the musical instrument is a planar or contoured surface, and wherein the

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mounting flange is configured for flexibly and conformably connecting the housing to the planar or contoured surface of the instrument.

Wechter teaches an improved electronic musical instrument, including: a housing of electronics that includes a mounting flange configured to connect the housing to the surface of the musical instrument (Figs. 2-7, col. 5, lines 13-24, lines 31-36 and col. 6, lines 20-29); the surface of the musical instrument is a planar or contoured surface, and wherein the mounting flange is configured for flexibly and conformably connecting the housing to the planar or contoured surface of the instrument (Figs. 2-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Wechter into the invention of Armstrong in order to provide a mechanism of mounting the housing to the musical instrument surface so that the electronics can be easily serviced and maintained while the musical instrument still preserves the required strength and balance (Wechter, cols. 2-3, lines 42-15).

With respect to claim 40:

Armstrong teaches a method of installing a preamplifier assembly in a musical instrument, the preamplifier assembly having a housing, comprising the steps of: forming a first opening in the musical instrument, the first opening having a size sufficient to receive the housing of the preamplifier assembly (Fig. 1, #64 and col. 4, lines 24-37); optionally forming a second opening in the musical instrument, the second opening having a size sufficient to receive a pickup operatively connected to the preamplifier assembly (col. 3, lines 37-48); installing the pickup on the musical

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instrument by optionally inserting the pickup through the second opening formed in the musical instrument (cols. 3-4, lines 37-23); disposing the housing within the first opening formed in the musical instrument to allow the mounting flange to overlap a portion of the surface of the musical instrument (col. 4, lines 24-37).

Armstrong does not mention expressly: said housing includes a mounting flange for connecting the housing to a surface of the musical instrument; fastening the mounting flange to the surface of the musical instrument to secure the preamplifier assembly to the instrument, wherein the mounting flange being fastened to the musical instrument surface to allow unobstructed user access to the face portion of the housing and the output connector connected thereto.

Wechter teaches an improved electronic guitar, including: a housing includes a mounting flange for connecting the housing to a surface of the musical instrument (Figs. 2-4; col. 5, lines 13-24, lines 31-36); and method step of fastening the mounting flange to the surface of the musical instrument to secure a preamplifier assembly to the instrument, wherein the mounting flange being fastened to the musical instrument surface to allow unobstructed user access to the face portion of the housing and an output connector connected thereto (Figs. 5-7; col. 6, lines 20-29 and lines 41-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Wechter into the invention of Armstrong in order to provide a mechanism of mounting the housing to the musical instrument surface so that the electronics can be easily serviced and maintained while

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the musical instrument still preserves the required strength and balance (Wechter, cols. 2-3, lines 42-15).

With respect to claim 42:

Armstrong teaches the method that includes the subject matter discussed above. Armstrong does not mention expressly that: said first forming step includes forming the first opening in a side of a lower bout of the instrument.

Wechter teaches an improved electronic guitar, including a method step of forming an opening in a side of a lower bout of the instrument for receiving the housing of a preamplifier assembly (Figs. 5-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Wechter into the invention of Armstrong in order to provide a mechanism of mounting the housing to the musical instrument surface so that the electronics can be easily serviced and maintained while the musical instrument still preserves the required strength and balance (Wechter, cols. 2-3, lines 42-15).

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong (U.S. Pat. No. 5274434) in view of Wechter (U.S. Pat. No. 5900561).

Armstrong teaches the preamplifier assembly that includes the subject matter discussed above.

Armstrong does not mention expressly: said output connector comprises an output jack, the output jack being mounted on the face portion at the opening formed therethrough.

Wechter teaches an improved electronic musical instrument, including: an output connector comprises an output jack, the output jack being mounted on the face portion at the opening formed therethrough (Fig. 2, #66 and #67; col. 9, lines 41-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Wechter into the invention of Armstrong in order to a mechanism for installing an output jack to the electronic that has constructional convenience and improved access to the output jack (Wechter, col. 9, lines 41-55).

6. Claims 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong (U.S. Pat. No. 5274434) in view of Soumi et al. (U.S. Pat. No. 4937606).

Armstrong teaches the preamplifier assembly that includes the subject matter discussed above. Armstrong does not mention expressly the battery holder cover that includes the limitations recited in claims 24-30.

Soumi et al. teaches a batter holder cover, including: the cover is slidably mounted on the face portion of the housing (col. 3, lines 7-13); the cover is pivotally and slidably mounted on the face portion of the housing (col. 3, lines 7-13); the cover includes at least one cover locking surface and the face portion of the housing includes at least one cover retaining element, the cover retaining element being configured to engage the cover locking surface when the cover encloses the battery within the battery holder (col. 3, lines 49-59); the cover has at least one pivot formed thereon, and wherein the face portion of the housing includes a bezel, the bezel having at least one slot formed therein, the slot being configured to receive the pivot (col. 3, lines 14-18);

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the cover is configured to rotate about the pivot to enclose the battery within the battery holder and to open the battery holder to allow the user to access the battery therein, the slot being configured to allow the cover locking surfaces to slidably engage the cover retaining elements (col. 3, lines 7-32); the battery holder has a plurality of battery terminals disposed therein, the cover having at least one rib formed on a surface thereof, the rib being configured to push the battery toward the battery terminals when the cover encloses the battery in the battery holder (col. 4, lines 61-68); and the terminals are configured to urge the battery against the at least one rib formed on the cover, thereby causing the cover locking surface on the cover to securely engage the cover retaining element on the face portion of the housing (col. 4, lines 61-68).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Soumi et al. into the invention of Armstrong in order to provide Armstrong's battery holder with a battery cover that is lightweight, structural simple and easy to operate, and that can be appropriately applied to handheld electronic instrument or device (Soumi et al., cols. 1-2, lines 63-21).

7. Claims 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong (U.S. Pat. No. 5274434) in view of Kupnicki et al. (U.S. Pat. No. 6283778).

Armstrong teaches the method that includes the subject matter discussed above. Armstrong does not mention expressly that: the circuit board spacer has a guide rail formed on a length thereof, wherein the housing has mounting rail formed on a surface thereof, and wherein the step of disposing the circuit board subassembly within the housing includes slidably engaging the guide rail to the mounting rail.

Kupnicki et al. teach a technique for mounting circuit board, including: a circuit board spacer has a guide rail formed on a length thereof, wherein a housing has mounting rail formed on a surface thereof, and wherein a step of disposing the circuit board subassembly within the housing includes slidingly engaging the guide rail to the mounting rail (col. 1, lines 51-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Kupnicki into the invention of Armstrong in order to provide a constructional convenient mechanism for mounting printed circuit boards which allows a circuit board to be removed, inserted or replaced easily (Kupnicki et al., Abstract). The mere application of a known technique to a specific instance by those skilled in the art would have been obvious.

8. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong (U.S. Pat. No. 5274434) in view of Wechter (U.S. Pat. No. 4351217), as applied to claim 40 above, and further in view of Loar (U.S. Pat. No. 2020842).

Armstrong and Wechter teach the method that includes the subject matter discussed above. The combination of Armstrong and Wechter does not mention expressly that: the musical instrument comprises an acoustic stringed instrument including a body, a bridge, and a saddle slot, wherein the second forming step includes forming the second opening through the bridge, and wherein the installing step includes inserting the pickup from inside the instrument body through the opening in the bridge for subsequent insertion in the saddle slot.

Loar teaches a musical instrument that comprises an acoustic stringed instrument including a body, a bridge, and a saddle slot, wherein an opening through the bridge is formed, and wherein pickups are inserted from inside the instrument body through the opening in the bridge for subsequent insertion in the saddle slot (Figs. 1, 2, 5-9; page 2, right column, lines 14-51; page 3, left column, lines 1-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Loar into the combination of Armstrong and Wechter in order to apply the method of Armstrong and Wechter to a musical instrument having pickups installation as taught by Loar. The mere application of a known technique to a specific instance by those skilled in the art would have been obvious.

Prior Art Citations

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Lacombe (U. S. Pat. No. 5723805) is entitled "Vibration transducer device for stringed musical instruments".

2) Lefton (U. S. Pat. No. 6278059) is entitled "Electronics housing having a flexible outer flange".

3) Hsu (U. S. Pat. No. 5509343) is entitled "Tambourine with light control effect".

4) Moskowitz et al. (U.S. Pat. No. 4069732) is entitled "Electric guitar".

5) Hudak (U.S. Pat. No. 5731535) is entitled "Proximity sensitive control circuit for electronic musical instrument".

Contact Information

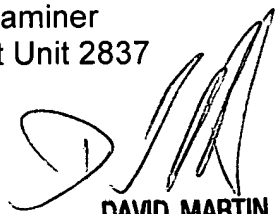
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 7am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JQ
July 05, 2005

Jianchun Qin
Examiner
Art Unit 2837


DAVID MARTIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application/Control Number: 10/649,369
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